UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET - SUITE 500
DENVER, CO 80202-2466

REF: EPR ER

Progress POLREP
Little Creek Park Gasoline Spill
Littleton, Colorado

I. BACKGROUND

DATE:	**12/02/02**
SUBJECT:	Little Creek Park Gasoline Spill
POLREP NO.:	**POLREP 2**
FROM:	Duc Nguyen
RESPONSE AGENCY:	EPA REGION VIII
ADDRESS:	999 18TH STREET, SUITE 500 DENVER, CO 80202-2466

II SITUATION

RESPONSE AUTHORITY:	OPA, CWA
PARTY CONDUCTING ACTION:	PRP
FPN NO.:	N-99092
CASE NO.:	CO-99-0049
State Notification:	1/29/99
Date Action Started:	1/29/99
Action Complete:	TBD

III. SITE INFORMATION

A. Site Description

The Little Creek Park Gasoline Spill site is located in Littleton, Arapahoe County, Colorado, northwest of the intersection of South Broadway and Sterne Parkway. A storm water culvert and pond drainage system carries surface water and runoff approximately 5 miles west from the area to the South Platte River.

B. Incident or Release

The incident involved the suspected release of gasoline from one or more underground storage tanks, located at the Diamond Shamrock Gasoline Station, 6857 South Broadway Street, Littleton, Colorado, to a one-quarter acre duck pond located north of the facility across Sterne Parkway in Little Creek Park. The source was believed to be from one or more of five fixed, below-ground, 8000-gallon fuel storage tanks located at the facility. Estimates vary on the actual volume released but "best guess" estimate furnished at this time by Diamond Shamrock representatives is approximately 100 to 200 gallons. The release was first discovered by a Diamond Shamrock technician at approximately 1330 hours on January 29, 1999. A noticeable sheen was observed along the south and east embankments of the pond where gasoline fuel seemed to be seeping. Initial responders to the site included representatives from the Diamond Shamrock Company, Littleton Fire and Hazmat Department and a representative from the Colorado Department of Labor and Employment (Oil Inspection Section).

Immediate actions included:

Diamond Shamrock representatives deployed absorbent boom at several locations within the pond including the surface water outlet located at the down gradient side of the pond. Absorbent pads were placed within the boomed areas to assist in immobilizing the fuel. Perimeter fencing was placed around the pond to prevent pedestrian entry into the contaminated area. Air monitoring was conducted by EPA Superfund Technical and Response Team (START) personnel, utilizing a Photoionization Detector/Flameionization Detector (PID/FID), to determine volatile concentrations. Readings recorded within the immediate breathing zone ranged from 0 to 40 ppm. Additionally, a reconnaissance was conducted by START that included an effluent inspection of surface water down stream approximately one-quarter mile west of the pond.

C. Preliminary Assessment Results

The START project leader arrived at the site on 1/29/99 at approximately 1530 hours, followed shortly by a second START member and two representatives from Region VIII EPA. The Denver Fire Department and representatives from the Diamond Shamrock company were on site and had subsequently deployed absorbent boom in a semi-circular pattern along the south and east embankments of the duck pond to entrap product as it leached from the embankment. Additionally, an absorbent boom was deployed around a grated drain, located within the pond, which feeds to the local storm drainage system. An unknown amount of fuel was contained at the spill site. Approximately, one pint of a treatment solution, identified as Micro-blaze, was applied to the spill areas by Diamond Shamrock representatives. According to the MSDS information provided by Diamond Shamrock, the solution applied to the spill areas was a biological dispersant, consisting primarily of viable bacterial cultures and nonionic detergent.

PID readings, conducted by START, in the immediate breathing zone, ranged from 0 to 40 ppm. Head space readings at several monitoring wells, previously placed by the RP between the Diamond Shamrock facility and the park, ranged from 0 to over 600 ppm PID. The highest reading was detected at monitoring well #11, located approximately 25 feet south of the pond and 175 feet west of South Broadway. START personnel proceeded one-quarter mile downstream of the site to search for obvious sheen and distressed wildlife. No evidence of either sheen or stressed wildlife were observed outside the pond area. No detectable PID/FID readings were recorded during the reconnaissance.

IV. RESPONSE INFORMATION

A. Status of Removal Actions

- **RP performed a leak/pressure test on all USTs on site and repaired/replaced all failed tanks.**
- **RP utilized geoprobe to delineate the size and direction of the plume.**
- **RP began remediation, as necessary, to eliminate present and potential contamination. An approved Correction Action Plan included a remediation system consisting of groundwater extraction and treatment, soil vapor extraction, and limited air sparging; and the system is currntly being checked bi-weekly and monitored on both a monthly and quarterly basis. A summary of recent data collected indicates that the system is performing effectively to reduce hydrocarbon levels in the subsurface:**

  + **The groundwater extraction and treatment system has removed approximately 326 pounds of carbon since system start-up.**

  + **The soil vapor extraction system has removed approximately 10,711 pounds of hydrocarbon since system start-up.**

+ **The air sparge system is cycling 2 hours on and 2 hours off three times per day. Air is injected into the horizontal trenches and the lines within the tank pit with air flows that range from 6 to 60 cfm. Run-time will be increased gradually as the operation continues.**

B. <u>Next Steps</u>

OSC will continue to monitor cleanup activities.

The RP/Contractor will:

- **Check system operation on biweekly site visit;**

- **Conduct a monthly site visit to: 1) sample groundwater extraction system influent and effluent; and 2) monitor soil vapor extraction emissions;**

- **Conduct a monthly site visit to: 1) gauge groundwater levels and dissolve oxygen in monitor wells; 2) Sample soil vapor extraction effluent; 3) Obtain groundwater samples from monitoring wells and submitted them for analysis of benzene, toluene, ethylbenzene, xylenes, and total hydrocarbons and maintain and service remediation equipment.;**

C. <u>Enforcement</u>

TBD

V. COST INFORMATION

EPA initially opened the Oil Pollution Act Fund for $20,000 for purposes of monitoring the cleanup and has raised the ceiling to $30,000 to include additional monitoring/evaluation. Total costs are not available at this time; but the RP is funding the Removal costs, and it appears that EPA expenditures will be less than the OPA-approved ceiling of $30,000 .